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# ROBOTIC SYSTEMS Joint Project Office- Fort Leonard Wood

By Second Lieutenant Wayland Lau and Mr. Joseph Stevens

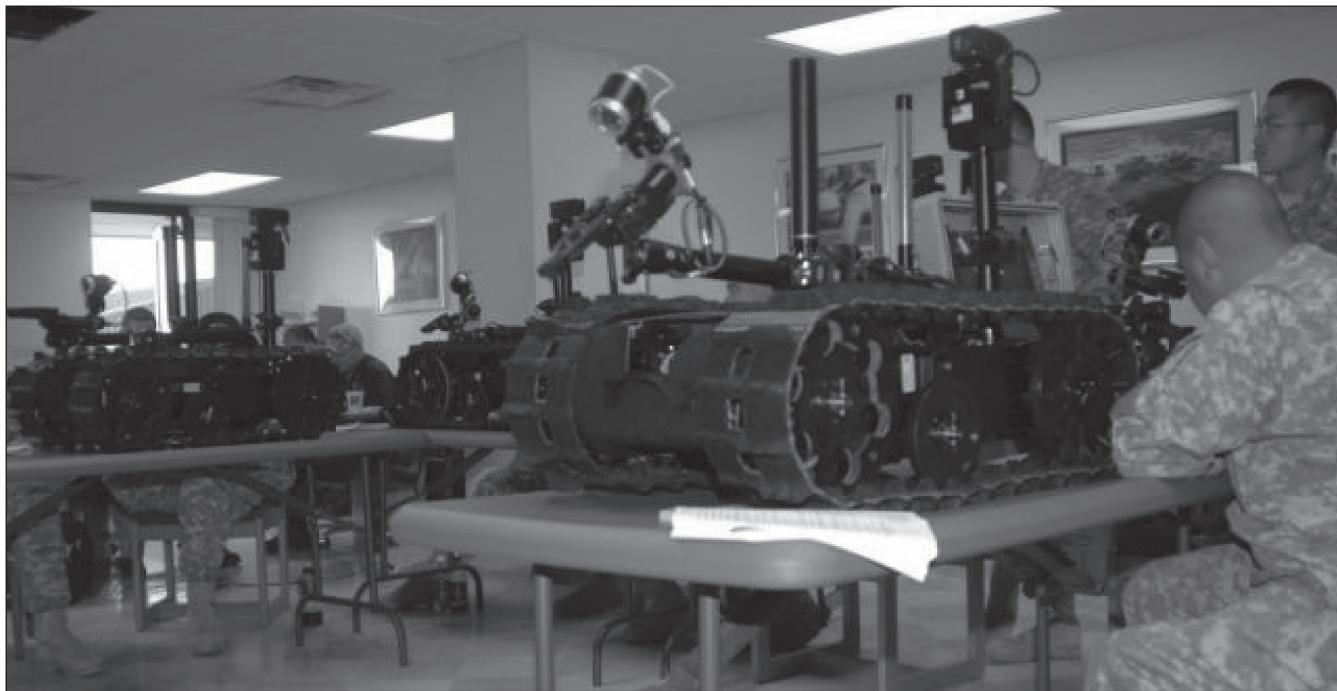
**T**he current operational environment has produced a number of innovative tactical enablers to support the Warfighter. One of the greatest success stories in this area of the current-day fight is the adaptation and fielding of commercial robotic systems to meet the operational needs and objectives of land forces. A result of this activity is a family of mission-specific robotic tools for combat engineers.

## Background

**H**eadquartered in Warren, Michigan, the Robotic Systems Joint Project Office (RSJPO) is the materiel solution provider for United States Army and Marine Corps unmanned ground vehicle (UGV) needs. The office began in 1988 when the Department of Defense, Army, and Marine Corps facilitated an initiative to combine their development efforts of UGVs. Initial acquisitions

were used by explosive ordnance disposal (EOD) personnel to assist in the investigation and neutralization of improvised explosive device (IED) threats. Due to non-EOD mission shortfalls, additional robotic requirements were developed, including the capability to support combat engineers during route and area clearance missions.

Since its inception, RSJPO has developed—and maintains—working relationships with all Army and Marine Corps laboratories, the other uniformed Services, and various agencies. The current Fort Leonard Wood (FLW) office was established in July 2007 as part of an organizational restructuring of RSJPO to better align itself within its three functional development areas: maneuver, maneuver support, and sustainment. Assistant project managers (APMs) provide cost, schedule, and performance management support to the PM in each of these areas.



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## **Mission, Training, and Operations**

**T**he RSJPO FLW mission includes, but is not limited to—

- Conducting all operational assessments on new engineer robotic systems and payloads.
- Managing all joint engineer program-of-record (POR) systems.
- Conducting contingency and new POR system operator training.
- Supporting doctrine and tactics training development by the United States Army Maneuver Support Center of Excellence (MSCoE) Capabilities Development Directorate. Maneuver support encompasses three schools: Chemical, Biological, Radiological, and Nuclear (CBRN); Engineer; and Military Police.

To meet these mission requirements, RSJPO FLW is organized into a headquarters element, two robot training divisions, and a joint robotic repair detachment (JRRD). The staff—which conducts training, maintains specialized robotics and equipment, and provides logistic support to domestic and deployed units—consists of an acquisition logistics training lead, four instructors, two robot technicians, and one supply technician.

RSJPO FLW conducts operator certification courses on all robotic systems currently fielded and intended for use by maneuver support elements. This includes both small robots and the Antipersonnel Mine Clearing System, Remote Control: M160 (MV-4B POR designation). Small robot operator courses are two days long and are conducted both at Fort Leonard Wood and at unit home stations through mobile training teams. The M160 operator course is five days long and only conducted at Fort Leonard Wood. Instructors also provide familiarization training on these systems as an embedded element of select Counter Explosive Hazards Center (CEHC) curriculums and the Engineer Warrant Officer Basic and Advanced Courses. The current

training venue will likely expand in the near term as new robotic platforms become available that are designed to provide dismounted forces with the capability to perform hazardous close-quarter reconnaissance and counter-IED operations. This is all in addition to providing robotic system platforms to support Fort Leonard Wood unit training exercises and special events—such as the Best Sapper Competition and Humanitarian Demining Center demonstrations.

JRRD serves as a “one-stop shop” for UGV logistic, maintenance, and other technical support services at Fort Leonard Wood. It repairs all RSJPO FLW and CEHC robotic systems and provides maintenance support for the Explosive Ordnance Clearance Agent Course. To meet this sustainment need, JRRD maintains a 90-day parts supply inventory on all supported robotic systems.

As a POR system, the M160 is completely managed by RSJPO FLW. Currently, this includes coordinating scheduled upgrades for initial-purchase systems and the intertheater movement of all deployed systems and providing full logistic support for in-theater systems by supplying joint sustainment facilities with repair parts. RSJPO FLW instructors and JRRD personnel also provide maintenance training on the M160 to robot technicians deploying to sustainment facilities in both existing theaters of operation. Once the M160 program reaches milestone C (full production) decision, the RSJPO FLW team will be responsible for fielding these systems to engineer clearance companies by providing new equipment training teams.

## **Summary**

**U**GVs have proven their ability to contribute to combat operations in both Iraq and Afghanistan, with the exponential benefit of reduced risk for land forces. As robotic technology advances, RSJPO FLW is strategically positioned at the tip of the spear to meet the fielding and sustainment needs of the Engineer Warfighter.

For further information, contact RSJPO FLW at (Commercial) 573-596-0845 or (DSN) 581-0845.



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